

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 5 to 8.

The above amendment is responsive to points set forth in the Official Action.

With regard to Official Action paragraph 2, the rejected terminology "characterized" no longer appears and the term "Bristow's method" has antecedent basis in new claim 6.

Claim 1 has been rejected under 35 USC 102(e) as anticipated by Cessna (U.S. 5,853,901) and claims 1 to 4 have been rejected under 35 USC 103(a) as being unpatentable over this reference.

These rejections are respectfully traversed.

A brief discussion of the present invention will be of assistance in appreciating Applicants' reasons for traversal of the rejection.

The present invention is directed to an ink jet recording paper having a high ink absorption speed compatible with high speed ink jet printers and high ink coloring density. In the present invention, by using mercerized pulp in an amount of 10 to 100 % by weight based on the entire fiber material, both high ink absorption speed and high ink coloring density can be obtained due to the high liquid (ink) absorption property of the mercerized pulp itself.

The recording paper of the present invention may be exclusively used for the ink jet printing system and is not very suitable for printing in other than the ink jet printing system, since the paper strength is relatively low for printing by means other than an ink jet printing.

The recording paper compatible with high speed ink jet printers is preferably provided with a desirable water absorbing speed.

As an index for representing the water absorbing speed of paper, the degree of size as defined in JIS P 8122 is generally used. However, it is desired that the ink jet recording paper have a degree of size of 5 sec or less and substantially 0 (zero) sec (see page 7, line 12 to page 8, line 6 of the present specification). Thus, it is required to determine a desirable water absorbing speed of the ink jet recording paper by using another index. In the present invention, a liquid

transfer length in the Bristow's method is used as an index for representing the water absorbing speed of the ink jet recording paper, as clearly recited in new claim 6.

The rejection states in paragraph 8 of the Official Action that "The determination of the liquid transfer length in the Bristow's method according to J. Tappi No. 51-87 is a product-by-process limitation". In fact, however, the determination of the liquid transfer length is an index for representing the property of the water absorbing speed of paper and not a step in a method for producing the ink jet recording paper.

Turning to the cited reference, Cessna (U.S. 5,853,901) discloses a pressure laminated decorative paper 10 comprising a lightweight paper face sheet 15 and a paper overlay sheet 20. Mercerized pulp is used in the face sheet 15 as a fiber material. The face sheet 15 is printed with a decorative layer 82 (Fig. 4). To produce such decorative layer, there is exemplified gravure ink printing, silk screen printing, ink jet printing, electrostatic precipitation or the like (column 6, lines 28 to 35). Thereafter, both the face sheet and the overlay sheet are saturated with resin and the saturated face and overlay sheets are cured and laminated.

The rejection states in the paragraph 8 of the Official Action that "Cessna discloses paper for ink jet printing (column 6, lines 33-35) where mercerized pulp is used for the fiber material". However, the description relied on by the rejection does not indicate that the face sheet 15 containing mercerized pulp therein is used as an ink jet recording paper, but merely explains that the decorative printing on the face sheet 15 may be carried out by using various printing methods, such as gravure ink printing, silk screen printing, ink jet printing, electrostatic precipitation or the like.

It should be noted that mercerized pulp in Cessna is used for providing increased absorbency and uniformity of resin saturation (claim 4) and improving the bulk and absorbency of the finished product (column 4, lines 62 to 64). Thus, it appears that Cessna uses mercerized pulp to impart bulk and low density to paper (face sheet). This is the same purpose for the use of mercerized pulp in the prior art (see, page 4, lines 4 to 8 of the present specification).

Accordingly, Cessna does not teach or suggest that both the high ink absorption speed and high ink coloring density can be obtained by using mercerized pulp in an ink jet recording paper as presently claimed.

Claims 1 and 2 have been rejected under 35 USC 102(b) as anticipated by WO 99/00541 and claims 1 to 4 have been rejected under 35 USC 103(a) as being unpatentable over this reference.

These rejections are respectfully traversed.

WO99/00541 discloses a saturated hydroentangled fibrous web useful for a garment label material which is ink jet printable and washable. The saturated hydroentangled fibrous web includes a fibrous web having a plurality of entanglement loci as a consequence of subjecting the fibrous web to high pressure liquid jets and a saturant which is present in the hydroentangled fibrous web at a level of about 10 to 100 percent, based on the dry weight of fibers. The saturant is adapted to render the saturated paper durable and ink jet printable. The fibrous web is composed of fibers including cellulosic fibers, mercerized cellulosic fibers and synthetic polymer fibers. The saturant includes a latex reinforcing polymer and a cationic polymer (see Abstract).

The hydroentangled substrate is significantly more absorbent than an otherwise identical substrate which has not been hydroentangled. In addition, the saturated hydroentangled substrate remains absorbent, even with relatively high levels of saturant, and it also provides an excellent surface for absorbing printing inks or specialized coatings (page 13, the last paragraph).

Accordingly, WO99/00541 does not teach or suggest that both the high ink absorption speed and high ink coloring density can be obtained by using mercerized pulp in an ink jet recording paper.

For the foregoing reasons, it is considered that the rejections on prior art are untenable and should be withdrawn.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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